

**In the Claims:**

Claims 1.-25. (Canceled).

Claim 26. (New) An antibody specifically binding at least one epitope of a heparanase protein, said heparanase protein: a) having an amino acid sequence as set forth in SEQ ID NO:2; b) having an amino acid sequence as set forth in SEQ ID NO:2, provided that said amino acid sequence has a phenylalanine residue instead of a tyrosine residue at position 246; or c) being an active form of a) or b).

Claim 27. (New) The antibody of claim 26, wherein said heparanase protein is recombinant.

Claim 28. (New) The antibody of claim 26, wherein elicitation of the antibody is through in vivo or in vitro techniques, said antibody having been prepared by a process comprising the steps of:

- (a) exposing cells capable of producing antibodies to said at least one epitope of said heparanase protein and thereby generating antibody producing cells;
- (b) fusing said antibody producing cells with myeloma cells and thereby generating a plurality of hybridoma cells each producing monoclonal antibodies; and
- (c) screening said plurality of monoclonal antibodies to identify a monoclonal antibody which specifically binds heparanase.

Claim 29. (New) The antibody of claim 26, wherein the antibody is selected from the group consisting of a polyclonal antibody and a monoclonal antibody.

Claim 30. (New) The antibody of claim 29, wherein said polyclonal antibody is selected from the group consisting of a crude polyclonal antibody and an affinity purified polyclonal antibody.

Claim 31. (New) The antibody of claim 26, wherein said active form of said heparanase protein has endoglycosidase hydrolyzing activity.

Claim 32. (New) An antibody elicited by at least one epitope of a heparanase protein, said heparanase protein: a) having an amino acid sequence as set forth in SEQ ID NO:2; b) having an amino acid sequence as set forth in SEQ ID NO:2, provided that said amino acid sequence has a phenylalanine residue instead of a tyrosine residue at position 246; or c) being an active form of a) or b).

Claim 33. (New) The antibody of claim 32, wherein said heparanase protein is recombinant.

Claim 34. (New) The antibody of claim 32, wherein elicitation of the antibody is through in vivo or in vitro techniques, said antibody having been prepared by a process comprising the steps of:

- (a) exposing cells capable of producing antibodies to said at least one epitope of said heparanase protein and thereby generating antibody producing cells;
- (b) fusing said antibody producing cells with myeloma cells and thereby generating a plurality of hybridoma cells each producing monoclonal antibodies; and
- (c) screening said plurality of monoclonal antibodies to identify a monoclonal antibody which specifically binds heparanase.

Claim 35. (New) The antibody of claim 32, wherein the antibody is selected from the group consisting of a polyclonal antibody and a monoclonal antibody.

Claim 36. (New) The antibody of claim 35, wherein said polyclonal antibody is selected from the group consisting of a crude polyclonal antibody and an affinity purified polyclonal antibody.

Claim 37. (New) The antibody of claim 32, wherein said active form of said heparanase protein has endoglycosidase hydrolyzing activity.